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10/575,105	12/12/2006	Masayuki Kamite	289478US3 PCT	3713
22850	7590	03/31/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.				
1940 DUKE STREET				
ALEXANDRIA, VA 22314				
EXAMINER				
LEYSON, JOSEPH S				
ART UNIT		PAPER NUMBER		
1791				
NOTIFICATION DATE		DELIVERY MODE		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

# Office Action Summary

**Application No.**

10/575,105

**Applicant(s)**

KAMITE ET AL.

**Examiner**

JOSEPH LEYSON

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 1-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 7/5/06/27/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 5-8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-8 have not been further treated on the merits.
2. Claims 1-4 are objected to because of the following informalities: for antecedent basis clarity, claims 1, 2 and 4 should be amended as follows:

1. An extrusion molding machine, which is characterized by a storage bin for supplying foam material to be molded into a foam body, a cylinder and a screw for mixing and transporting the foam material from the storage bin, a mold at the cylinder front end, a tank provided with piping connecting the storage bin and the screw and storing ~~the~~ a fluid for foaming the above-mentioned foam material, and a heater for melting the foam material and at the same time heating the foaming fluid by stages from ~~the~~ an initial temperature below its boiling point to ~~the~~ a final temperature of its total vaporization.

2. The extrusion molding machine as described in Claim 1, which is characterized by using water as the foaming fluid. The initial temperature of the above-mentioned heater is set as above 60°C and below 100°C, and the final temperature is set as above 160°C and below 240°C. Such foam material and foaming fluid are heated in six stages.

4 The extrusion molding machine as described in Claim 3, which is characterized by an electric motor and a cam mounted thereon to effect vibration of the storage bin by intermittently knocking the side of the storage bin by the cam driven by the electric motor.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 includes three separate sentences making it unclear whether or not the claim includes the limitations of the last two sentences. The last two sentences do not depend upon a claim. Claim 2 must only include one sentence.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kemerer et al. (US 4,128,369).

Kemerer et al. (US 4,128,369) teach an extrusion molding machine (i.e., fig. 10A), which is characterized by a storage bin 10 for supplying foam material (i.e., abstract) to be molded into a foam body, a cylinder (i.e., col. 14, lines 19-21) and a screw 66 for mixing and transporting the foam material from the storage bin 10, a mold 24, 28 at a cylinder front end (fig. 12), a tank 58 provided with piping 12, 14, 16, 60 connecting the storage bin 10 and the screw 66 and storing a fluid for foaming the above-mentioned foam material (i.e., col. 14, lines 9-18; col. 17, lines 53-68), and a heater 21-1, 21-2, 21-3, 21-4 for melting foam material and at the same time heating the foaming fluid by four stages (i.e., defined by the heaters 21-1, 21-2, 21-3, 21-4) from the initial temperature below its boiling point to the final temperature of its total vaporization (i.e., col. 11, lines 19-57; col. 18, lines 28-56). The initial temperature of the above-mentioned heater is capable of being set as above 60°C and below 100°C, and the final temperature is capable of being set as above 160°C and below 240°C (i.e., col. 11, lines 19-57; col. 18, lines 28-56).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemerer et al. (US 4,128,369) in view of DeMello et al. (US 5,607,629).

Kemerer et al. (US 4,128,369) disclose the apparatus substantially as claimed as mentioned above, except for the foaming fluid being water.

DeMello et al. (US 5,607,629) discloses an extrusion molding machine for extruding a foamable material, wherein the foaming (i.e., blowing) fluid is water (i.e., abstract).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the foaming fluid of Kemerer et al. (US 4,128,369) to be water because it is well known in the art to use water as a foaming (i.e., blowing) agent, as disclosed by DeMello et al. (US 5,607,629). As to the foam material and foaming fluid being heated in six stages, it would be well within an artisan of ordinary skill to duplicate apparatus parts for a multiplied effect (i.e., more temperature control), St. Regis Paper Co. v. Bemis Co., Inc., 193 USPQ 8.

10. Claims 3 and 4 (when dependent upon claim 2) are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemerer et al. (US 4,128,369) in view of

DeMello et al. (US 5,607,629) as applied to claim 2 above, and further in view of LeGourd (US 3,314,398).

LeGourd (US 3,314,398: fig. 1; col. 2, lines 10-18) discloses a storage bin 7 including means for causing material flow in the storage bin 7 defined by a vibrating mechanism effecting intermittent vibration laterally on a side of the storage bin 7, wherein an electric motor 4 and a cam 21 is mounted on the storage bin 7 to effect vibration of the storage bin 7 by intermittently knocking the side of the storage bin 7 by the cam 21 driven by the electric motor 4.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with an electric motor and a cam, as disclosed by LeGourd (US 3,314,398), because such a modification would provide means for causing material flow in the storage bin.

11. Claims 3 and 4 (when dependent upon claim 1) are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemerer et al. (US 4,128,369) in view of LeGourd (US 3,314,398).

Kemerer et al. (US 4,128,369) disclose the apparatus substantially as claimed as mentioned above, except for the limitations of claims 3 and 4.

LeGourd (US 3,314,398: fig. 1; col. 2, lines 10-18) discloses a storage bin 7 including means for causing material flow in the storage bin 7 defined by a vibrating mechanism effecting intermittent vibration laterally on a side of the storage bin 7, wherein an electric motor 4 and a cam 21 is mounted on the storage bin 7 to effect

vibration of the storage bin 7 by intermittently knocking the side of the storage bin 7 by the cam 21 driven by the electric motor 4.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to the storage bin of Kemerer et al. (US 4,128,369) with an electric motor and a cam, as disclosed by LeGourd (US 3,314,398), because such a modification would provide means for causing material flow in the storage bin.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Okins (US 1,597,921), Wiley et al. (US 3,121,130), Gresch (US 3,574,890), Johnson (US 4,448,737) and Hayashi et al. (US 4,548,775) are cited as of interest to show the state of the art.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH LEYSON whose telephone number is (571)272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/  
Primary Examiner, Art Unit 1791  
3/24/08

/J. L./  
Examiner, Art Unit 1791